This investigation shows, as other studies have, that the causes of parental failure and neglect are multiple. Prominent among them are ill health, often in both parents, leading to the father's unemployment, and the mother's neglect of her home and children; mental incapacity of the parents so that they mis-spend their money; and large family size reducing the income per head below subsistence level. Mrs. Wilson considers that situations of stress associated with poverty are of greater importance than the defects of personality assumed by many psychiatrists to be fundamental causes of neglect. Poverty leads to the children's social isolation, fear of school, educational failure and a type delinquency through neglect which Mrs. Wilson thinks may eventually be distinguishable from delinquency derived from the environment and "guilt delinquency." She suggests that the neglected child, untrained from an early age, isolated from the wider community and unaware of its moral demands, develops a weak super-ego and poor guilt reactions; he takes what he needs by the easiest and least painful methods he can find. Pilfering becomes a necessity, and later a habit, if food and essentials are only casually provided at home.

Those who have watched many children from problem families adjust quickly to an orderly daily routine and conform to moral standards of behaviour once they are away from home will question Mrs. Wilson's assumptions about the lack of development of super-ego functioning. Some children from problem families show guilt reactions and a sense of responsibility beyond their years.

It is not to be doubted that the prevention of delinquency and other forms of inadequate social functioning in children is a serious problem. The practical measures which Mrs. Wilson advocates —special allowances where the income is below subsistence level, suitable forms of family planning, nursery schools for the young children, and special home helps—though generally recognized, are not at present sufficiently put into operation. Her account, given in an appendix, of an experimental nursery school for the pre-school children from large poor families in Seaport is of particular interest in demonstrating the ways in which the nursery school may help to overcome the family's social isolation and promote friendly relationships which will prepare for the child's entry to primary school and his acceptance later of an orderly educational programme.

HILDA LEWIS

CONGENITAL ABNORMALITY

Norman, A. P. (Editor). *Congenital Abnormalities in Infancy*. Oxford, 1963. Blackwell. Pp. xv + 389. Price 63s.

THE SUBJECT OF congenital abnormalities is very wide indeed, and could easily provide material for a series of volumes. The editor of this book, with his contributors, has succeeded in producing a useful handbook of relatively small size. This has been done, in the first place, by confining the anomalies described to those which are apparent during the first few weeks of life. He says: "It has been by the side of the cot of the newborn baby that I have most often wished for some handy authority to which I could refer." This remark is the key to the planning of the book. The main emphasis is on diagnosis, the steps to be taken when this has been made, and on the essentials of treatment. There is little doubt that the obstetrician, the paediatrician and the general practitioner, to whom it is primarily addressed, will find it a practical and useful guide.

The feature of the book which will make most appeal to readers of THE EUGENICS REVIEW is the emphasis on aetiology and on the genetic implications. There is a brief but admirable introductory chapter by Dr. C. O. Carter on incidence and aetiology, in which a succinct account is given of the incidence of the more important malformations, with a discussion of genetic, partly genetic, and non-genetic determination. In the various chapters figures for genetic risks are given when these are known or can be approximately estimated. We are told that these are largely due to Dr. Carter. Many of the figures are new, and there is probably no other volume where the genetics of the conditions included can so easily and conveniently be looked up. Moreover, skimming through this book gives what is probably the best bird's-eye view of the rôle and importance of genetic influences

in determining the malformations apparent during the first few weeks of life.

J. A. FRASER ROBERTS

BEHAVIOUR

Thorpe, W. H. *Learning and Instinct in Animals.* Second edition, revised and enlarged. London, 1963. Methuen. Pp. x + 558. Price 63s.

TO WRITE A book which attempts to cover the theories of "instinct" and its relationship to "learning," and at the same time to review work on learned behaviour throughout the animal kingdom, is both rash and public-spirited. To do so now, with the subject in flux if not chaos, is positively foolhardy. Dr. Thorpe's book, first published in 1956, now appears in a second edition, substantially enlarged and with many additions to its already vast and invaluable bibliography. Once again, all students of animal behaviour are consequently much indebted to the author. Part 3, which covers work on all the main animal phyla and is about three-fifths of the whole, alone makes the book an essential source for all research workers and teachers in this field.

The subject, ethology, depends even more than most on continual debate. Accordingly, I shall devote this review to argument about Thorpe's method of presenting ethology and his attitude to the theory of instinct. It is characteristic that the book begins with the most abstract and difficult propositions. This is "logical" (his word) only in the sense that it enables the initiated reader (though nobody else) to find out quickly the author's general ideas and presuppositions about behaviour. To many people the first pages have certainly been an active deterrent to reading on. On page 1, for instance, we find:

> From the philosophical point of view, the central problem of ethology is the relation between purposiveness and directiveness, and it looks at times as if this is the same as the relation between learning and instinct.

This in itself could be the basis of a lengthy essay; but how many potential readers (say, undergraduates) will see what Thorpe is getting at in this sentence? The whole book, but especially the most difficult parts, is written as if addressed to colleagues of equal erudition but requiring the fruits of Thorpe's latest reflections.

Perhaps for this reason Thorpe is indifferent to the demands of "logic" in another sense: he ignores the semantic obstacles which trip every student of behaviour at almost every step; in his use of special terms he cheerfully wanders from one meaning or image to another. Consider, for instance, "habituation." On page 27 we find a reference to "the exhaustion of a specific nervous co-ordination mechanism or Habituation." But on page 61 there is a formal definition, namely:

> the relatively permanent waning of a response as a result of repeated stimulation which is not followed by any kind of reinforcement.

Never mind whether this is a *convenient* definition; we are at least entitled to assume that Thorpe is stipulating that he will use "habituation" in this sense (and no other) in this book (if nowhere else). On page 68, however, a new development appears:

> . . . for the time being it is best to use "habituation" primarily to mean the *long-term stimulus-specific waning of a response* due to failure to release the consummatory act. (Author's emphasis.)

If this is the "primary" meaning of habituation, one wonders what its secondary meaning is! Finally, on page 184, in the chapter on Protozoa, there is a reference to "behaviour which, if found in higher animals, would be, provisionally at least, regarded as habituation." Since we cannot be certain what meaning "habituation" has here, this passage is inevitably opaque. Thorpe, in fact, gives the impression that he imagines an essential, ideal or true Habituation, residing in some undiscovered bourne and responsible for various manifestations in actual behaviour.

This Platonic outlook is often evident elsewhere, for instance in the treatment of "insight." On page 139 we are asked to "assume provisionally that insight is perception of relations." This implies, logically, that there is a phenomenon or class of events, named "insight"; and that one may make the hypothesis that the occurrence of "insight" (already defined in other terms) entails the perception of relations. That Thorpe is, in fact, thinking of something ulterior emerges in his summary on page 146, which begins: "It is provisionally assumed that the *essence* of insight is the perception of relations" (reviewer's em-